

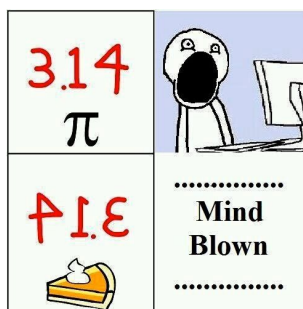
SWBAT: Observe and identify properties of magnetism

Mar 11-8:31 AM

Welcome!!!

H. Leslie Grebe

- * Pick up:
- slip of paper (for later)
- worksheet

SECA Physics
Monday 14 March 2016

Opening Question:

Which is stronger: magnetism or gravity?

~~Test Thursday?~~
TUESDAY 3/29MUCH STRONGER
THAN GRAVITY!
centering

Sep 7-7:04 AM

Concept Sheet -- get yours out

We'll fill in a concept & "bike analogy" column today

5 or 6 rows

Concept	Meaning	Sym- bol	Units	Bike Analogy	WATER ANALOGY
CHARGE	PROPERTY OF PROTONS & ELECTRONS THAT CAUSES ATTRACTION & REPULSION	q	COULOMBS C		WATER ITSELF
VOLTAGE = ELECTRIC POTENTIAL	POTENTIAL BASED ON POSITION IN AN ELECTRIC FIELD. "PUSH"	V	VOLTS V $V = I \cdot R$	- PERSON - PEDALING ⇒ THE PUSH	- PUMP - PRESSURE ⇒ PUSH!
CURRENT	THE FLOW OF ELECTRIC CHARGE. = $\frac{\text{CHARGE}}{\text{TIME}}$	I	AMPERES A = $\frac{C}{s}$	CHAINS, WHEEL, BIKE MOVING	FLOW OF WATER
RESISTANCE	OPPOSITION OF CURRENT (AGAINST THE FLOW)	R	OHMS Ω	BRAKES	
OHM'S LAW	VOLTAGE = CURRENT X RESISTANCE	$V = I \cdot R$	$1V = 1A \cdot 1\Omega$		
POWER	AMOUNT OF WORK DONE PER SECOND POWER = CURRENT X VOLTAGE	P = I · V	WATTS W $1W = 1V \cdot 1A$ $= \frac{J}{s}$		

Extend Page

Feb 23-7:34 AM



Mystery Resistor - extra credit

- You may work alone or with at most one other person of your choosing.
- Get a "Mystery Resistor" labeled with a letter from Leslie
- Use the same equipment that our teams used in class. Take measurements that will allow you to calculate the resistance (in Ohms) of your resistor.
- You may work when there is spare time in class or arrange other time with Leslie.

Due by 3:00 Friday 3/18

Jan 19-7:12 AM

Exploring Magnetism

OBSV #1

N & S

1. How do two magnets interact? What does that have to do with the labeled ends?

OBSV #2

2. What happens when you bring a magnet near a compass? (Try it from different directions...)

MEANS #2

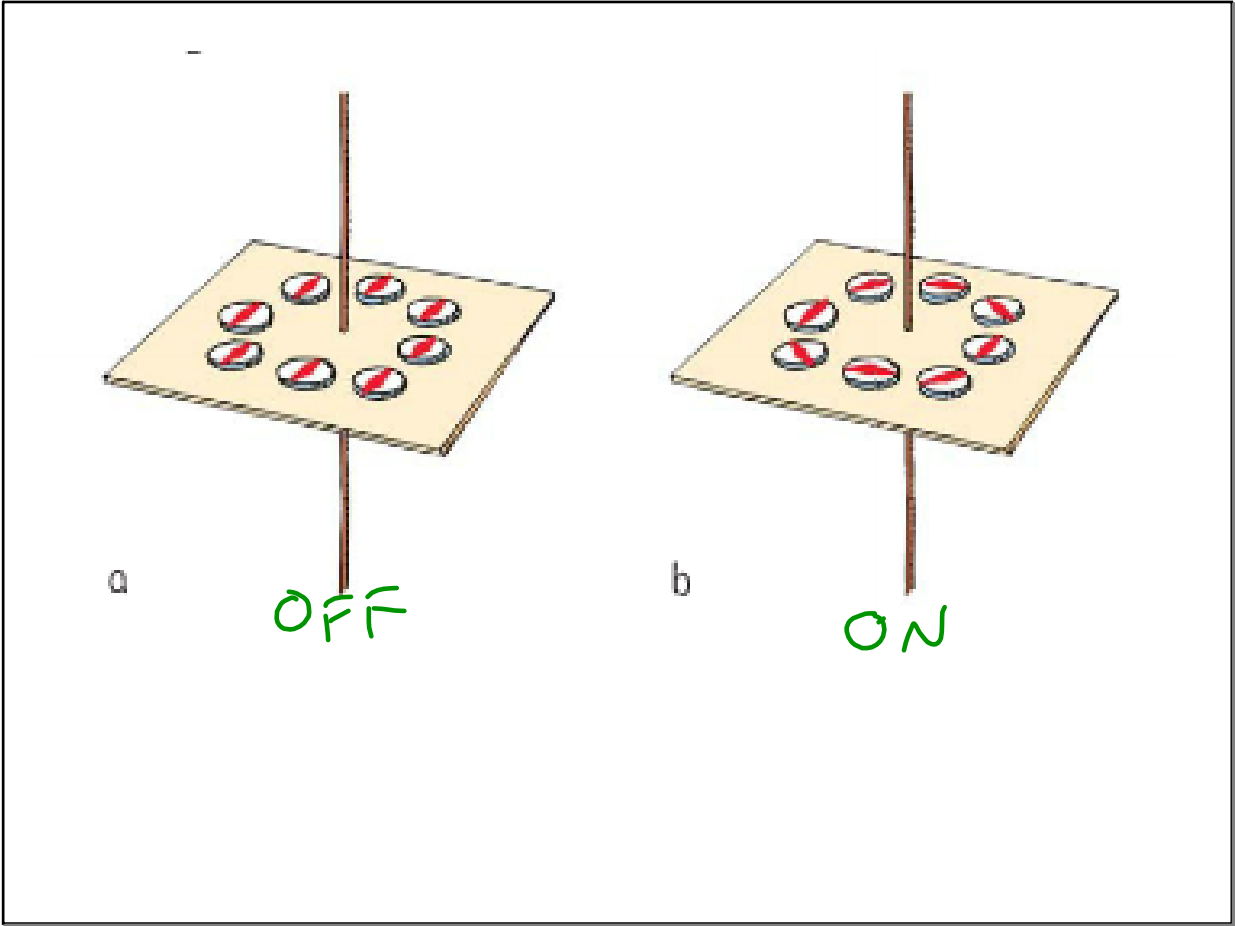
3. The compass is a tool. What does it show?

Mar 25-7:41 AM

What we OBSERVED	What it MEANS	What's the BIG IDEA?
N & S ATTRACT N & N REPEL S & S REPEL	<u>FORCES</u>	MAGNETS ARE DIPOLES N & S (<u>NOT</u> + & -)
MAGNETS MOVE (COMPASS NEEDLE <u>WITHOUT TOUCHING</u>)	COMPASS SHOWS MAGNETIC FORCES	MAGNETS GENERATE MAGNETIC FIELDS
CURRENT IN WIRE MADE COMPASS NEEDLES MOVE!	CURRENT MAKES MAGNETIC FORCES!	CURRENT GENERATES MAGNETIC FIELDS

Catchy Physics Phrases...

Mar 25-7:45 AM



Jan 3-7:45 AM

What reacts to a magnet???

Material	Prediction	Observation
Wood	N Y Y	N
Plastic	N Y	N
Copper	Y / N	N
Aluminum	Y	N
<i>Iron</i> Steel	Y	Y
Brass	Y	N
Penny (Zinc & Cu)	Y	N

STEEL IS CHEAP & STRONG & MAGNETIC

Mar 25-7:41 AM

Daily 3 Questions

- * Every day except test/project days
- * 3 Questions on the topics of the day
- * Main source of daily points
- * I am happy to give credit when I have no concerns about someone giving or getting help with the answers.

You can't get your points if you don't have your **NAME!!!**

Name	Period
1.	
2.	
3.	

Sep 9-7:32 AM

1) For the paper clips, which force was stronger:
Gravitational or Magnetic?

2) Instead of separate positive and negative charges,
magnets have POLES?
N/S

3) True or False: Copper reacts to magnets.

3) Today we saw that currents make
_____ fields.

Feb 18-6:59 AM